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NOV 12 2004 & TRADEMARK OFFICE

Docket No.: 10013080-1 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
Kimberly Read	:	Confirmation No. 3215
U.S. Patent Application No. 09/970,973	:	Group Art Unit: 2178
Filed: October 5, 2001	:	Examiner: Gregory Vaughn

For: DATA DRIVEN WEB PAGE GENERATOR

DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Randy A. Noranbrock, based on information and belief, declare:

1. I am a Registered Patent Attorney authorized to practice before the U.S. Patent & Trademark Office, Registration number 42, 940.

2. Prior to September 24, 2001, I received a copy of an invention disclosure (Exhibit 1) describing an invention of Ms. Kimberly Read.

3. Prior to September 24, 2001 and based on Exhibit 1 and discussions with Ms. Read, I prepared a draft of the above-identified patent application (Application Serial Number 09/970,973, hereinafter referred to as the '973 application).

4. Prior to September 24, 2001, I prepared and forwarded to Ms. Read a draft of the prepared patent application (Exhibit 2) along with a cover letter (Exhibit 3).

5. Prior to September 24, 2001, I received an executed Declaration/Power of Attorney (Exhibit 4) for the '973 application from Ms. Read.

6. Prior to September 24, 2001 I requested authorization from in-house counsel of Ms. Read's employer to file the application in accordance with normal practice for matters handled by my firm for Ms. Read's employer, I awaited instructions from Ms. Read's employer authorizing me to file the '973 application. Such authorization was received on October 5, 2001.

7. On October 5, 2001, pursuant to the authorization received from Ms. Read's employer, I executed a transmittal for the filing of the '973 patent application with the U.S. Patent & Trademark Office (Exhibit 5). The Application was filed on this date.

8. The draft of the '973 patent application provided to Ms. Read prior to September 24, 2001 includes the same content as the '973 application-as-filed on October 5, 2001.

9. Each of the dates deleted from Exhibits 1, 2, and 3 is prior to September 24, 2001.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

LOWE HAUPTMAN GILMAN & BERNER, LLP

Randy A. Noranbrock

Randy A. Noranbrock
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NOV 12 2004
PATENT & TRADEMARK OFFICE

Docket No.: 10013080-1 **PATENT**

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Kimberly K. Read	:	Confirmation No. 3215
U.S. Patent Application No. 09/970,973	:	Group Art Unit: 2178
Filed: October 5, 2001	:	Examiner: Gregory J. Vaughn

For: DATA DRIVEN WEB PAGE GENERATOR

DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Kimberly Read, based on information and belief, declare:

1. I am the inventor of all the claims of the above-identified patent application (Application Serial Number 09/970,973, hereinafter referred to as the '973 application).

2. Prior to September 24, 2001, I conceived the idea of a data driven web page generator, as described and claimed in the '973 application.

3. Prior to September 24, 2001, I prepared, signed, and submitted an invention disclosure describing my idea (Exhibit 1) to my employer.

4. Prior to September 24, 2001, my employer's outside counsel, patent attorney, Mr. Randy A. Noranbrock, forwarded to me a draft of the patent application (Exhibit 2) with his commentary letter (Exhibit 3).

5. On September 12, 2001, I reviewed the forwarded draft patent application, executed the Declaration/Power of Attorney previously provided as part of Exhibit 2, and returned a signed copy of same (Exhibit 4) to Mr. Noranbrock.

6. Each of the dates deleted from Exhibits 1, 2 and 3 is prior to September 24, 2001.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Kimberly K. Read

Kimberly Read

Date: 11/12/2004

Docket No.: 10013080-1 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
Kimberly Read	:	Confirmation No. 3215
U.S. Patent Application No. 09/970,973	:	Group Art Unit: 2178
Filed: October 5, 2001	:	Examiner: Gregory Vaughn

For: DATA DRIVEN WEB PAGE GENERATOR

DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, William J. Streeter, on information and belief, declare:

1. I am Senior Counsel for Hewlett-Packard Company (HP) and responsible, *inter alia*, for authorizing outside counsel to prepare and file patent applications for HP.

2. Prior to September 24, 2001, the HP Legal Department received a copy of an invention disclosure (Exhibit 1) describing an invention of an employee of HP, Ms. Kimberly Read. The invention disclosure was assigned HP docket number PDNO 10013080.

3. Prior to September 24, 2001, HP approved filing a U.S. patent application on the invention disclosed in invention disclosure PDNO 10013080.

4. Prior to September 24, 2001, I executed and returned to outside counsel an engagement letter agreement to prepare and file a U.S. patent application regarding the invention of Ms. Read disclosed in invention disclosure PDNO 10013080 subject to my authorization.

5. On October 5, 2001, I authorized outside counsel to file the patent application that had been prepared on the invention disclosed in invention disclosure PDNO 10013080.

6. Each of the dates deleted from Exhibit 1 is prior to September 24, 2001.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

William J. Streeter

Date: November 12, 2004

Write in Dark Ink on Front Side Only, Please

INVENTION DISCLOSURE

PDNO 10013080 DATE RCVD WS PAGE ONE OF ____ ATTORNEY XWPO

*Instructions: The information contained in this document is **COMPANY CONFIDENTIAL** and may not be disclosed to others without pr authorization. Submit this disclosure to the HP Legal Department as soon as possible. No patent protection is possible until a patent application authorized, prepared, and submitted to the Government.*

Descriptive Title of Invention: Data Driven Web Page Generator YOUR COPY

Name of Project: N

Product Name or Number: N

Was a description of the invention published, or are you planning to publish? If so, the date(s) and publication(s):

N

Was a product including the invention announced, offered for sale, sold, or is such activity proposed? If so, the date(s) and location(s):

N

Was the invention disclosed to anyone outside of HP, or will such disclosure occur? If so, the date(s) and name(s):

N

If any of the above situations will occur within 3 months, call your IP attorney or the Legal Department now at 1-898-4919 or 970-898-4919.

Was the invention described in a lab book or other record? If so, please identify (lab book #, etc.)

N

Was the invention built or tested? If so, the date:

yes,

Was this invention made under a government contract? If so, the agency and contract number:

N

Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).*

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)
B. Advantages of the invention over what has been done before.
C. Problems solved by the invention.
D. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: [ ].

Employee No.	Name	Signature	Telnet	Mailstop	Entity & Lab Nam
244164	Kim Read	Kimberly K. Read	20	0000-304	

(If more than four inventors, include additional information on another copy of this form and attach to this document)

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INVENTION DISCLOSURE COMPANY CONFIDENTIAL PAGE ____ OF ____

Signature of Witness(es): *(Please try to obtain the signature of the person(s) to whom invention was first disclosed.)*

The invention was first explained to, and understood by, me (us) on this date: [ ]

Full Name	Signature	Date of Signature
William P. O'Meara	William P. O'Meara	
Full Name	Signature	Date of Signature

Inventor & Home Address Information: *(If more than four inventors, include addl. information on a copy of this form & attach to this document)*

Inventor's Full Name: ~~Kim Re~~ Kimberly K. Read

Street: 1901 Canopy CT.

City: Ft. Collins State: CO Zip: 80528

Do you have a Residential P.O. Address? P.O. BOX ~~6~~ City State Zip

Greeted as *(nickname, middle name, etc.)*: Kim Citizenship: U.S

Inventor's Full Name

Street

City State Zip

Do you have a Residential P.O. Address? P.O. BOX City State Zip

Greeted as *(nickname, middle name, etc.)* Citizenship

Inventor's Full Name

Street

City State Zip

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Greeted as *(nickname, middle name, etc.)* Citizenship

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Greeted as *(nickname, middle name, etc.)* Citizenship

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Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page shou be signed and dated by the inventor(s) and witness(es).*

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

The Data-Driven Web Page Generator is a linkage of four screens which allows the business owner to define how information is presented to the users. The business owner can define categories (subject areas) and how many columns in a table it takes up as well as whether orientation is horizontal or vertical. Then the business owner can define what attributes are associated with a category. The Business owner can also define where the item will appear in a page. The idea here is to eliminate the lower

B. Advantages of the invention over what has been done before.

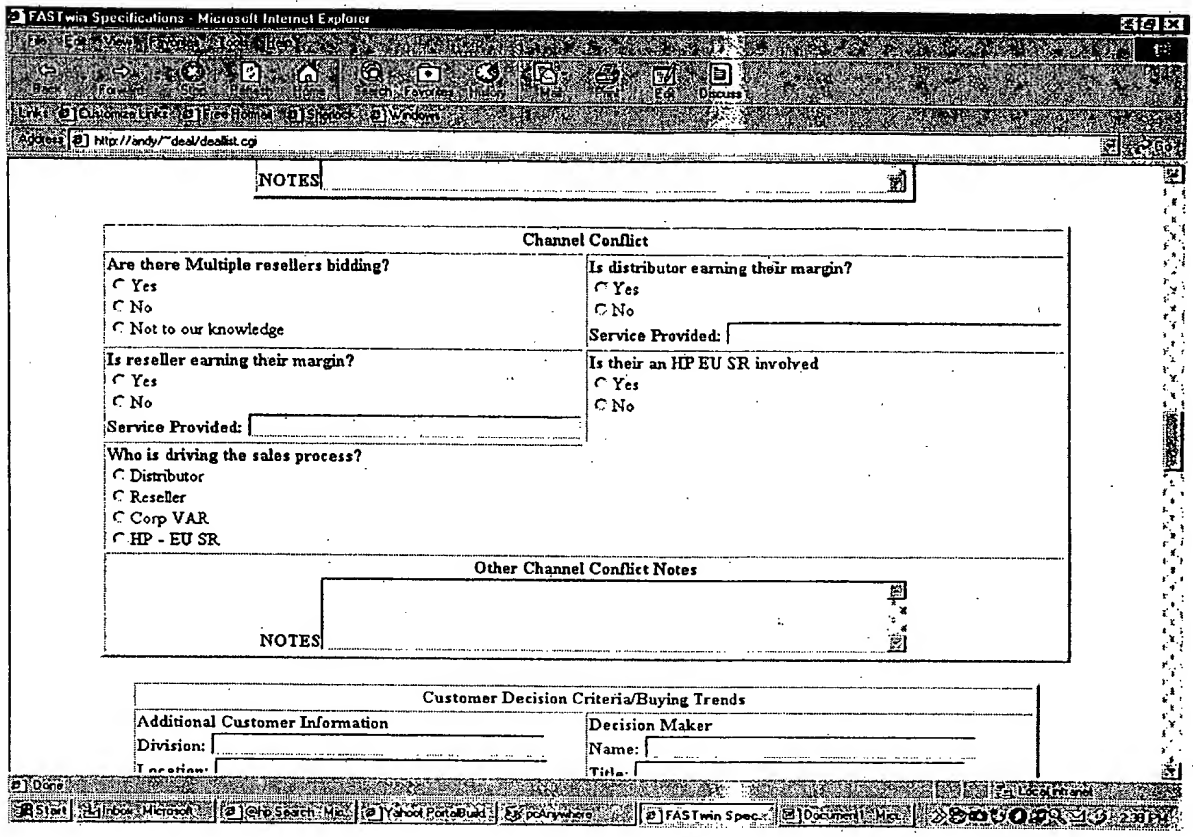
~~A CGI Application although~~
This tool allows for a dyramic environment. If a business changes how it does business or how it presents information, a web developer or programmer is no longer needed. But instead, the business owner makes the changes in the Tool and the information is seen instantly by users

C. Problems solved by the invention.

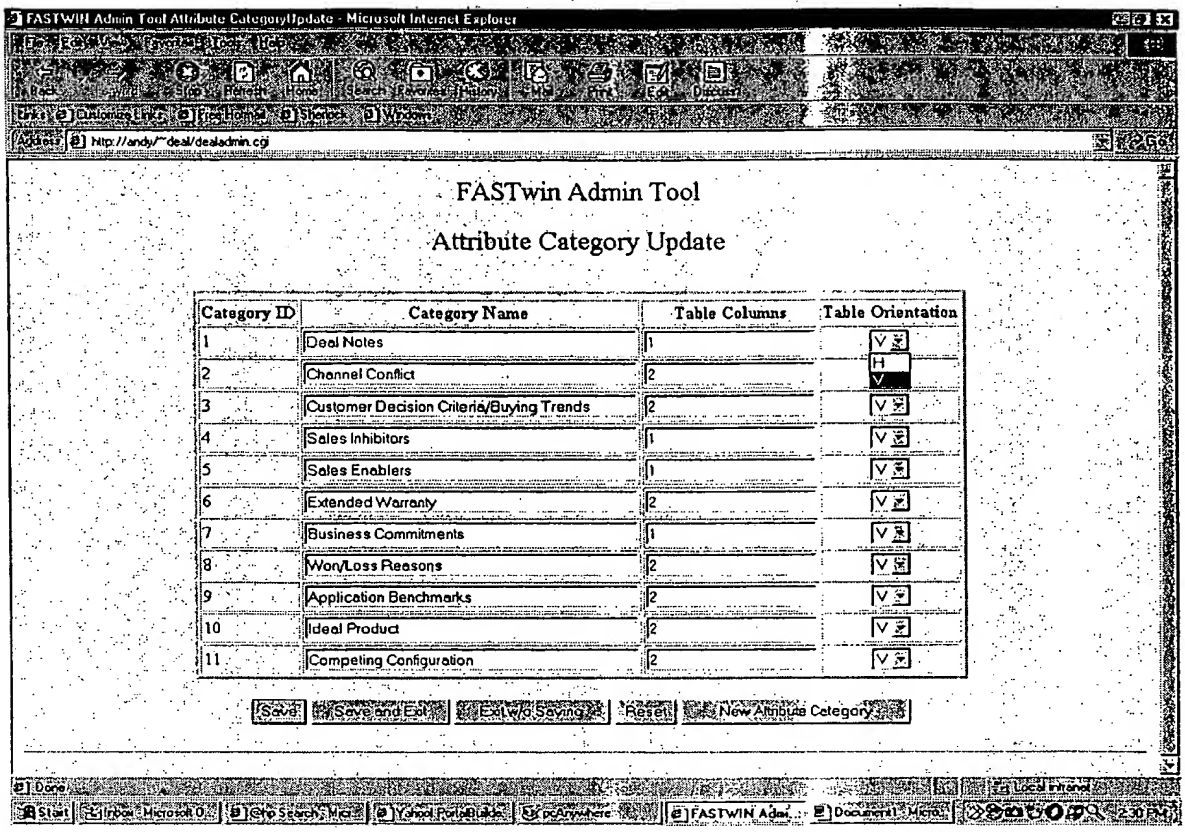
No recompilation
No programming
Business Owner ~~assum~~ takes control
No Support
Creates a "growing" web page -one that changes with the business

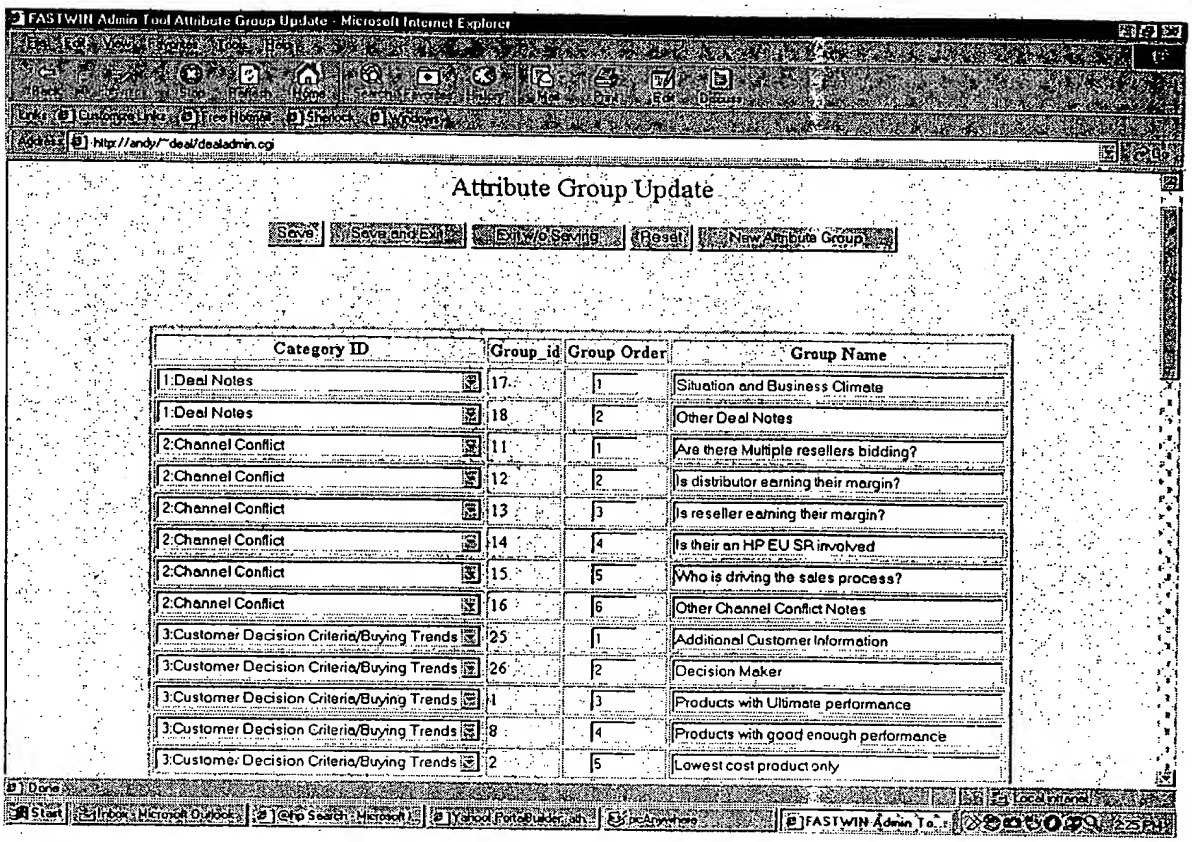
D. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

N/A



This is an example if a real-life application that uses the Data Driven web Page Generator. All of the above was defined by a business owner and the page builds itself. No programming or web knowledge was needed, just the business knowledge.


FASTWIN Admin Tool Attribute CategoryUpdate - Microsoft Internet Explorer
http://andy/~deal/dealadmin.cgi
FASTwin Admin Tool
Attribute Category Update
Category ID
Category Name
Table Columns
Table Orientation
1 Deal Notes 1 V
2 Channel Conflict 2 H V
3 Customer Decision Criteria/Buying Trends 2 V
4 Sales Inhibitors 1 V
5 Sales Enablers 1 V
6 Extended Warranty 2 V
7 Business Commitments 1 V
8 Won/Loss Reasons 2 V
9 Application Benchmarks 2 V
10 Ideal Product 2 V
11 Competing Configuration 2 V
Save
Save and Exit
Exit w/o Saving
Reset
New Attribute Category
Done
Start
FASTWIN Adm...
Document1 - Micro...
2:30 PM


FASTWIN Admin Tool Attribute Group Update - Microsoft Internet Explorer
http://andy/~deal/dealadmin.cgi
Attribute Group Update
Save
Save and Exit
Exit w/o Saving
Reset
New Attribute Group
Category ID
Group_id
Group Order
Group Name
1:Deal Notes 17 1 Situation and Business Climate
1:Deal Notes 18 2 Other Deal Notes
2:Channel Conflict 11 1 Are there Multiple resellers bidding?
2:Channel Conflict 12 2 Is distributor earning their margin?
2:Channel Conflict 13 3 Is reseller earning their margin?
2:Channel Conflict 14 4 Is their an HP EU SR involved
2:Channel Conflict 15 5 Who is driving the sales process?
2:Channel Conflict 16 6 Other Channel Conflict Notes
3:Customer Decision Criteria/Buying Trends 25 1 Additional Customer Information
3:Customer Decision Criteria/Buying Trends 26 2 Decision Maker
3:Customer Decision Criteria/Buying Trends 1 3 Products with Ultimate performance
3:Customer Decision Criteria/Buying Trends 8 4 Products with good enough performance
3:Customer Decision Criteria/Buying Trends 2 5 Lowest cost product only

Data Driven Web Page Generator

Field of the Invention

[001] The present invention relates generally to a web page creation and modification mechanism, and more particularly, to a data driven web page creation and modification mechanism.

Background Art

[002] The World Wide Web (WWW) is a subset of Internet functionality that locally and remotely links documents. The web document, i.e., the web page, includes text, graphics, animations and videos as well as hypertext links to other web pages enabling users to jump from page to page (hypertext) whether the pages are stored on the same server or on servers around the world.

[003] In recent years, the WWW has become the focal point of Internet activity by providing an easy, point and click interface to a large collection of online information increasing at a staggering rate.

[004] The WWW includes sites for online shopping from many organizations having e-commerce capabilities. In addition, the WWW includes multimedia delivery systems as new browsers feature extensions enabling audio, video, telephony, 3-D animations and videoconferencing.

[005] The fundamental WWW format is a text document embedded with HTML tags providing the formatting of the page as well as hypertext links to other pages in the form of uniform resource locators (URLs). HTML tags or codes are common alphanumeric characters entered using any text editor or word processor. Numerous WWW publishing programs include a graphical user interface (GUI) for web page creation and generation of the HTML codes.

[006] Web pages are stored at computers supporting the hyper-text transfer protocol (HTTP). Larger organizations or businesses have support staff to create and manage their web sites, while smaller entities have their sites hosted on computers run by their Internet service providers (ISPs).

[007] It is known in the art to create web pages by hand, i.e., to program or generate the text and layout of a web page using, at a minimum, a text editor. Advances in web page creation include template-based creation in which a form layout is used and filled in to create an individual web page. However, even under

both of these approaches, it is necessary that an individual have some knowledge of the hyper-text markup language in order to create the web page. Thus, there is a need in the art to enable the generation of web pages without requiring knowledge of HTML because a business owner, typically having little or no computer skills, would then be able to create and maintain the business' web pages.

[008] By enabling the business owner to create their own web pages, the owner is enabled to take control of the design, creation, and maintenance of the web site and to not have to rely on outside persons for web site related matters. This may also result in cost savings because additional persons need not be hired specifically for web page efforts. Thus, there is a need in the art to enable a business owner to take control of their web site.

[009] With template-based or other web page generation mechanisms it is necessary to "recompile" the web page, i.e., the web page needs to be regenerated or recreated, after changes are made. If the user forgets to recompile the web page, any changes made will not be updated on the viewable or published web site. Therefore, there is a need in the art for a web page generation mechanism which does not require recompilation after changes are made.

Disclosure/Summary of the Invention

[010] It is therefore an object of the present invention to provide a web page generation mechanism not requiring recompilation after changes are made to the web page.

[011] Another object of the present invention is to enable users to generate web pages without requiring knowledge of HTML.

[012] Another object of the present invention is to enable a user to more easily control web site content.

[013] The above described objects are fulfilled by a method of and apparatus for data driven web page creation. A method aspect includes presenting a first screen for receiving attribute category information, presenting a second screen for receiving attribute group information, presenting a third screen for receiving attribute information, presenting a fourth screen for receiving attribute to attribute group association information, and creating a web page using the attribute category, attribute group, attribute, and attribute to attribute group association information.

[014] An apparatus aspect includes a processor for receiving and transmitting data and a memory coupled to the processor. The memory has stored sequences of instructions which, when executed by the processor, cause the processor to present a first screen for receiving attribute category information, present a second screen for receiving attribute group information, present a third screen for receiving attribute information, present a fourth screen for receiving attribute to attribute group association information, and create a web page using the attribute category, attribute group, attribute, and attribute to attribute group association information.

[015] Still other objects and advantages of the present invention will become readily apparent to those skilled in the art from the following detailed description, wherein the preferred embodiments of the invention are shown and described, simply by way of illustration of the best mode contemplated of carrying out the invention. As will be realized, the invention is capable of other and different embodiments, and its several details are capable of modifications in various obvious respects, all without departing from the invention. Accordingly, the drawings and description thereof are to be regarded as illustrative in nature, and not as restrictive.

Brief Description of the Drawings

[016] The present invention is illustrated by way of example, and not by limitation, in the figures of the accompanying drawings, wherein elements having the same reference numeral designations represent like elements throughout and wherein:

[017] Figure 1 is a block diagram of a computer system used in an embodiment of the present invention;

[018] Figure 2 is an example web page generated from an embodiment of the present invention;

[019] Figure 3 is a user interface window for entering attribute category information according to an embodiment of the present invention;

[020] Figure 4 is a user interface window for entering attribute group information according to an embodiment of the present invention;

[021] Figure 5 is a user interface window for entering attribute update information according to an embodiment of the present invention; and

[022] Figure 6 is a user interface window for entering attribute group association information according to an embodiment of the present invention.

Best Mode for Carrying Out the Invention

[023] A method and apparatus for a data driven web page creation mechanism are described. In the following description, for purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the present invention. It will be apparent; however, that the present invention may be practiced without these specific details. In other instances, well-known structures and devices are shown in block diagram form in order to avoid unnecessarily obscuring the present invention.

Top level description

[024] The data driven web page generator is a software program including several screens allowing a user or business owner to define the presentation of information to other users, e.g., customers. Typically, the presentation is in the form of one or more HTML documents. The business owner defines attribute categories or subject areas and specifies the number of columns to be used in a table and the orientation of the table, e.g., horizontal or vertical. The business owner specifies the attribute group information and attribute information. The business owner further specifies the attribute groups associated with each attribute category and the location of an attribute group on a page. Finally, the business owner specifies the attributes and associates the specified attributes with an attribute group. The web page is created by the business owner without requiring a web developer and/or programmer. The business owner modifies the web page as the business changes.

Detailed Description

Hardware Overview

[025] Figure 1 is a block diagram illustrating an exemplary computer system 30 upon which an embodiment of the invention may be implemented. The present invention is usable with currently available personal computers, mini-mainframes, enterprise servers, multiprocessor computers and the like.

[026] Computer system 30 includes a bus 32 or other communication mechanism for communicating information, and a processor 34 coupled with the bus 32 for processing information. Computer system 30 also includes a main memory 36, such as a random access memory (RAM) or other dynamic storage device, coupled to the bus 32 for storing information and instructions to be executed by processor 34. Main

memory 36 also may be used for storing temporary variables or other intermediate information during execution of instructions to be executed by processor 34. Computer system 30 further includes a read only memory (ROM) 38 or other static storage device coupled to the bus 32 for storing static information and instructions for the processor 34. A storage device 40, such as a magnetic disk or optical disk, is provided and coupled to the bus 32 for storing information and instructions.

[027] Computer system 30 may be coupled via the bus 32 to a display 42, such as a cathode ray tube (CRT) or a flat panel display, for displaying information to a computer user. An input device 44, including alphanumeric and other keys, is coupled to the bus 32 for communicating information and command selections to the processor 34. Another type of user input device is cursor control 46, such as a mouse, a trackball, or cursor direction keys for communicating direction information and command selections to processor 34 and for controlling cursor movement on the display 42. This input device typically has two degrees of freedom in two axes, a first axis (e.g., x) and a second axis (e.g., y) allowing the device to specify positions in a plane.

[028] The invention is related to the use of a computer system 30, such as the illustrated system, to provide a data driven web page generator and method of use thereof. According to one embodiment of the invention, a data driven web page generator is provided by computer system 30 in response to processor 34 executing sequences of instructions contained in main memory 36. Such instructions may be read into main memory 36 from another computer-readable medium, such as storage device 40. However, the computer-readable medium is not limited to devices such as storage device 40.

[029] For example, the computer-readable medium may include a floppy disk, a flexible disk, hard disk, magnetic tape, or any other magnetic medium, a CD-ROM, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, an EPROM, a FLASH-EPROM, any other memory chip or cartridge, a carrier wave embodied in an electrical, electromagnetic, infrared, or optical signal, or any other medium from which a computer can read. Execution of the sequences of instructions contained in the main memory 36 causes the processor 34 to perform the process steps described below. In alternative embodiments, hard-wired circuitry may be used in place of or in combination with computer software instructions to implement the invention. Thus, embodiments of

the invention are not limited to any specific combination of hardware circuitry and software.

[030] Computer system 30 also includes a communication interface 48 coupled to the bus 32. Communication interface 48 provides a two-way data communication as is known. For example, communication interface 48 may be an integrated services digital network (ISDN) card, a digital subscriber line (DSL), or a modem to provide a data communication connection to a corresponding type of telephone line. As another example, communication interface 48 may be a local area network (LAN) card to provide a data communication connection to a compatible LAN. Wireless links may also be implemented. In any such implementation, communication interface 48 sends and receives electrical, electromagnetic or optical signals which carry digital data streams representing various types of information. Of particular note, the communications through interface 48 may permit transmission or receipt of the web page generating data and pages. For example, two or more computer systems 30 may be networked together in a conventional manner with each using the communication interface 48.

[031] Network link 50 typically provides data communication through one or more networks to other data devices. For example, network link 50 may provide a connection through local network 52 to a host computer 54 or to data equipment operated by an Internet Service Provider (ISP) 56. ISP 56 in turn provides data communication services through the world wide packet data communication services through the world wide packet data communication network now commonly referred to as the "Internet" 58. Local network 52 and Internet 58 both use electrical, electromagnetic or optical signals which carry digital data streams. The signals through the various networks and the signals on network link 50 and through communication interface 48, which carry the digital data to and from computer system 30, are exemplary forms of carrier waves transporting the information.

[032] Computer system 30 can send messages and receive data, including program code, through the network(s), network link 50 and communication interface 48. In the Internet example, a server 60 might transmit a requested code for an application program through Internet 58, ISP 56, local network 52 and communication interface 48. In accordance with the invention, one such downloaded application provides for a data driven web page generator and method of use thereof, as described herein.

[033] The received code may be executed by processor 34 as it is received, and/or stored in storage device 40, or other non-volatile storage for later execution. In this manner, computer system 30 may obtain application code in the form of a carrier wave.

Functional

[034] Figure 2 is a representative portion of a web page produced by the data driven web page generator as viewed in a web browser window 200 on a computer system 30. Browser window 200 includes an attribute category table 202, i.e., the channel conflict category, which is a portion of a web page for a business owner. The business owner's web page includes multiple attribute categories (described in detail below with reference to Figure 3) for presenting and/or obtaining information from a user or visitor to the web site.

[035] Each attribute category is displayed as a table having rows and columns and wherein the table elements, i.e., intersection of a row and column, are attribute groups within an attribute category. The table may have one or more rows and columns and may be oriented horizontally or vertically, e.g., attribute category table 202 is a table having five rows and two columns. The first row 204 includes the attribute category title and spans both columns.

[036] Attribute category table 202 has six attribute groups 206-216, respectively multiple reseller group 206, distributor earning group 208, reseller earning group 210, HP EU SR group 212, sales process driver group 214, and notes group 216. Each attribute group includes individual attributes displayed within the attribute group's table element, e.g., attribute group 206 includes yes attribute 218, no attribute 220, and no knowledge attribute 222. Each attribute includes an attribute type, described in detail below, defining how each attribute is to be displayed, e.g., yes attribute 218 is a radio button type attribute and service provided attribute 224 in attribute group 210 is a text type attribute.

[037] Each attribute, attribute group, and attribute category is specified by the user and is used to generate the web page viewed by a user, e.g., the web page viewed in browser window 200. Next, the detailed data provided by a user for the generation of the web page is described.

[038] With reference to Figure 3, an attribute category update screen 300 is displayed within a browser window 200. Category update screen 300 includes an

attribute category update table 302 for specifying attribute category information and a button control area 304 for commanding the web page generator.

[039] The attribute category update table 302 includes four columns of information pertaining to individual attribute categories, i.e., category ID column 306, category name column 307, table columns number column 308, and table orientation column 309. The category ID column 306 entry is a web page generator supplied value unique for each attribute category and is not set or modifiable by the user. In one embodiment, the category ID column 306 entry is a sequentially incremented value. Other methods for generating the category ID column 306 entry are possible, e.g., non-repeating random values and sequentially increasing or decreasing alpha-numeric values.

[040] The category name column 307 entry is a user-supplied alpha-numeric value specifying the name of an attribute category, e.g., "Deal Notes", "Channel Conflict", "Customer Decision Criteria/Buying Trends", and "Sales Inhibitors". The table columns number column 308 entry is a user-specified integer value specifying the number of columns used by an attribute category, e.g., the attribute category having a category ID value of two, that is, the Channel Conflict attribute category, has two columns for containing attribute groups. The table orientation column 309 entry is a user-specified value specifying the orientation of the attribute category table, e.g., horizontal or vertical orientation.

[041] Thus, comparing the row entry corresponding to the category ID having a value of two with the attribute category table 202 of Figure 2, it can be seen that the attribute category table 202 (a) has a title 204 matching the category name column 307 value of "Channel Conflict", (b) has two columns, and (c) the table is vertically oriented according to the table orientation column 309 specification.

[042] The button control area 304 includes buttons manipulable by the user to command the web page generator, namely save button 310, save and exit button 311, exit without saving button 312, reset button 313, and new attribute category button 314. Activating save button 310 saves user changes of attribute category update information to main memory 36 or storage device 40. Activating save and exit button 311 saves user changes of attribute category update information to main memory 36 or storage device 40 and exits the web page generator. Activating the exit without saving button 312 exits the web page generator without saving any user changes of attribute category update information.

[043] Activating the reset button 313 discards any user changes of attribute category update information and reverts the values to the previously saved values. Activating the new attribute category button 314 commands the web page generator to add an additional attribute category to the attribute category update table 302 and generate a unique category ID value for the new attribute category.

[044] As described above in conjunction with Figure 2, each attribute category includes an attribute group and the attribute group is specified using an attribute group update screen 400, as shown in Figure 4. The attribute group update screen 400 is similar in form to the attribute category update screen 300, described above, in that the screen 400 includes an attribute group update table 402 and a button control area 404.

[045] The attribute group update table 402 includes four columns of information pertaining to individual attribute groups, i.e., category ID column 406, group ID column 407, group order column 408, and group name column 409. The category ID column 406 entry is a user-selectable value list based on the user value entries in category name column 307 of Figure 3. The group ID column 407 entry is a web page generator supplied value unique for each group category and is not set or modifiable by the user. In one embodiment, the group ID column 407 entry is a sequentially incremented value. Other methods for generating the group ID column 407 entry are possible, e.g., non-repeating random values and sequentially increasing or decreasing alpha-numeric values.

[046] The group order column 408 entry is a user-specified integer value specifying the order in which attribute groups within an attribute category are displayed. For example, attribute group 416 is displayed prior to attribute group 418 because the group order column 408 entry specifies that group 416 is the first group followed by group 418 as the second group.

[047] The group name column 409 entry is a user-supplied alpha-numeric value specifying the name of an attribute group, e.g., "Situation and Business Climate", "Other Deal Notes", "Are there Multiple resellers bidding?", and "Is distributor earning their margin?".

[048] Thus, comparing the row entry of attribute group 416 corresponding to the category ID having a value of "Channel Conflict" and the group ID having a value of eleven with the attribute group 206 of attribute category table 202 of Figure 2, it can be seen that the attribute group 206 (a) has a title of "Are there Multiple resellers

bidding?" corresponding to the group name column 409 entry and (b) is the first group displayed in the attribute category table 202.

[049] The button control area 404 includes buttons manipulable by the user to command the web page generator, namely save button 410, save and exit button 411, exit without saving button 412, reset button 413, and new attribute group button 414. Activating save button 410 saves user changes of attribute group update information to main memory 36 or storage device 40. Activating save and exit button 411 saves user changes of attribute group update information to main memory 46 or storage device 40 and exits the web page generator. Activating the exit without saving button 412 exits the web page generator without saving any user changes of attribute group update information.

[050] Activating the reset button 413 discards any user changes of attribute group update information and reverts the values to the previously saved values. Activating the new attribute group button 414 commands the web page generator to add an additional attribute group to the attribute group update table 402 and generate a unique group ID value for the new attribute group.

[051] As described above in conjunction with Figure 2, each attribute group of an attribute category includes individual attributes and the attributes are specified using an attribute update screen 500, as shown in Figure 5. The attribute update screen 500 is similar in form to the attribute category update screen 300 and the attribute group update screen 400, described above, in that the screen 500 includes an attribute group update table 502 and a button control area (not shown) functionally similar to button control areas 304 and 404.

[052] The attribute update table 502 includes three columns of information pertaining to individual attributes, i.e., attribute ID column 504, attribute type column 505, and attribute name column 506. The attribute ID column 504 entry is a web page generator supplied value unique for each attribute and is not set or modifiable by the user. In one embodiment, the attribute ID column 504 entry is a sequentially incremented value. Other methods for generating the attribute ID column 504 entry are possible, e.g., non-repeating random values and sequentially increasing or decreasing alpha-numeric values. The attribute type column 505 entry is a user-selectable value list based on predefined display elements, e.g., radio buttons, text boxes for receiving ten character input, text boxes for receiving forty character input, checkboxes, and text areas.

[053] The attribute name column 506 entry is a user-specified alpha-numeric value specifying the name of an attribute, e.g., "Customer Values", "Customer pays incremental costs", "Yes", "No", "KBytes", "MBytes", "Gbytes", and "Not to our knowledge".

[054] Thus, comparing the row entry of attribute 508 corresponding to the attribute ID having a value of three with the attribute group 206 of attribute category table 202 of Figure 2, it can be seen that the attribute group 206 has an attribute 218 having a value of yes. Further, no and no knowledge attributes 220 and 222, having radio button display elements, correspond to attributes 510 and 512 of Figure 5.

[055] As described above in conjunction with Figure 2, each attribute group of an attribute category includes individual attributes, the association of attributes with attribute groups is specified using an attribute group association update screen 600, as shown in Figure 6. The attribute group association update screen 600 is similar in form to the attribute category update screen 300, the attribute group update screen 400, and the attribute update screen 500, described above, in that the screen 600 includes an attribute group update table 602 and a button control area (not shown) functionally similar to button control areas 304 and 404.

[056] The attribute group association update table 602 includes four columns of information pertaining to the association of individual attributes with an attribute group, i.e., group column 603, attribute column 604, attribute order column 605, and default value column 606. The group column 603 entry is a user-selectable value list based on entries in the attribute group update table 402 as specified by a combination of (a) the group ID column 407 entry, (b) the category ID column 406 user selection, and (c) the user value entry in group name column 409 of Figure 4. The attribute column 604 entry is a user-selectable value list based on entries in the attribute update table 502 as specified by a combination of (a) the attribute ID column 504, (b) the attribute type column 505, and (c) the attribute name column 506.

[057] The attribute order column 605 entry is a user-specified integer value specifying the order in which attributes within an attribute group are displayed, e.g., based on increasing numeric value.

[058] The default value column 606 entry is a user-selectable value specifying whether the corresponding attribute is the default value for the particular attribute group association table 502 entry.

[059] Thus, comparing the row entries of attribute group assocations 607-609 corresponding to the group having a category ID value of eleven, a category name value of "Channel Conflict", and a group name value of "Are there Multiple resellers bidding?", the attribute column 604 entries are "3:RADIO:Yes", "4:RADIO:No", and "11:RADIO:Not to our knowledge", respectively row entries 607, 608, and 609. The row entries 607, 608, and 609 are based on row entries 508, 510, and 512 of Figure 5, i.e., the combination of attribute ID column 504 entry, attribute type column 505 entry, and attribute name column 506 entry.

[060] By adding a group and attribute association to the attribute group association update table 602, a user is adding attributes to the resulting web page displayed to a user, e.g., attribute category table 202 in window 200 of Figure 2. The web page generator generates the web page based on the data in the attribute group association update table 602 in combination with the attribute update table 502, the attribute group update table 402, and the attribute category update table 302.

[061] For example, the yes attribute 218 is specified by row entry 508 in attribute update table 502 to be a radio button, based on the attribute type column 505 entry, and to have a name of yes, based on the attribute name column 506 entry. The yes attribute 218 is specified as the first attribute in attribute group 206 based on the row entry 607 in attribute group association update table 602 having an attribute order column 605 entry of one. Row entry 607 also specifies through the association of the attribute with the group, through column selections in group column 603 and attribute column 604, that the attribute is to be displayed as part of the attribute group 206.

[062] Row entry 416 in attribute group update table 402 specifies attribute group 206 as the first attribute group in attribute category 204 based on the group order column 408 entry and the category ID column 406 entry. Row entry 316 in attribute category update table 302 specifies attribute category table 202 as having two vertically oriented columns based on the table columns number column 308 entry and the table orientation column 309 entry.

[063] It will be readily seen by one of ordinary skill in the art that the present invention fulfills all of the objects set forth above. After reading the foregoing specification, one of ordinary skill will be able to affect various changes, substitutions of equivalents and various other aspects of the invention as broadly disclosed herein. It is therefore intended that the protection granted hereon be limited only by the definition contained in the appended claims and equivalents thereof.

What is claimed is:

1. A method of data driven web page creation comprising the following steps:

presenting a first screen for receiving attribute category information;

presenting a second screen for receiving attribute group information;

presenting a third screen for receiving attribute information;

presenting a fourth screen for receiving attribute to attribute group association information and

creating a web page using the attribute category, attribute group, attribute, and attribute to attribute group association information.

2. The method as claimed in claim 1 wherein the first screen further receives a column specification.

3. The method as claimed in claim 2 wherein the column specification includes the number of columns and column orientation.

4. The method as claimed in claim 1 wherein the attribute category information includes category ID, category name, column number, and table orientation information.

5. The method as claimed in claim 1 wherein the attribute group information includes category ID, group ID, group order, and group name information.

6. The method as claimed in claim 1 wherein the attribute information includes attribute ID, attribute type, and attribute name information.

7. The method as claimed in claim 1 wherein the attribute to attribute group association information includes group, attribute, attribute order, and default value information.

8. A computer system for data driven web page creation comprising:

a processor for receiving and transmitting data; and

a memory coupled to the processor, the memory having stored therein sequences of instructions which, when executed by the processor, cause the processor to present a first screen for receiving attribute category information, present a second screen for receiving attribute group information, present a third screen for receiving attribute information, present a fourth screen for receiving attribute to attribute group association information, and create a web page using the attribute category, attribute group, attribute, and attribute to attribute group association information.

9. The computer system as claimed in claim 8 wherein the attribute category information includes category ID, category name, column number, and table orientation information.

10. The computer system as claimed in claim 8 wherein the attribute group information includes category ID, group ID, group order, and group name information.

11. The computer system as claimed in claim 8 wherein the attribute information includes attribute ID, attribute type, and attribute name information.

12. The computer system as claimed in claim 8 wherein the attribute to attribute group association information includes group, attribute, attribute order, and default value information.

Abstract

A method of and apparatus for data driven web page creation is described. The method includes presenting a first screen for receiving attribute category information, present a second screen for receiving attribute group information, presenting a third screen for receiving attribute information, presenting a fourth screen for receiving attribute to attribute group association information, and creating a web page using the attribute category, attribute group, attribute, and attribute to attribute group association information.

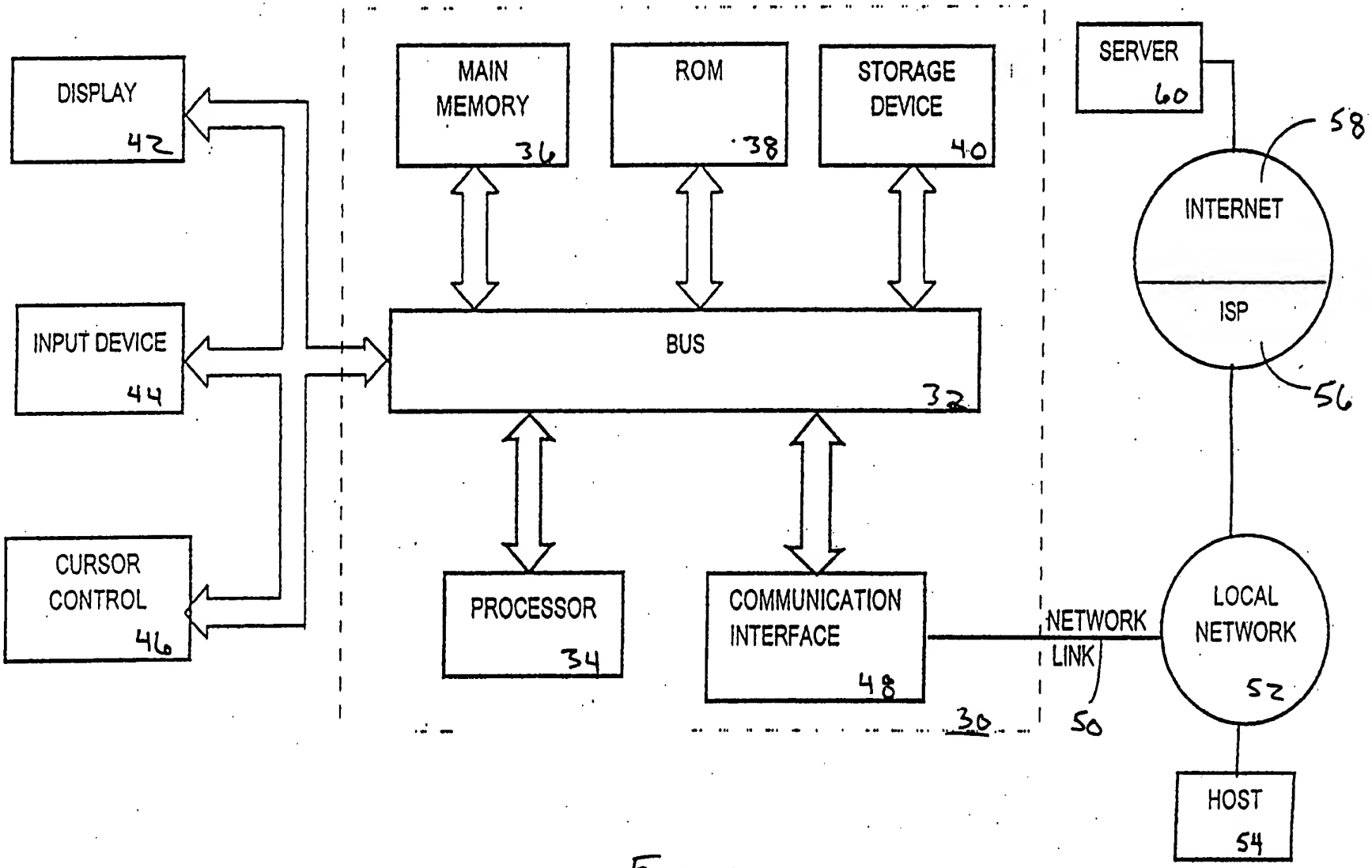
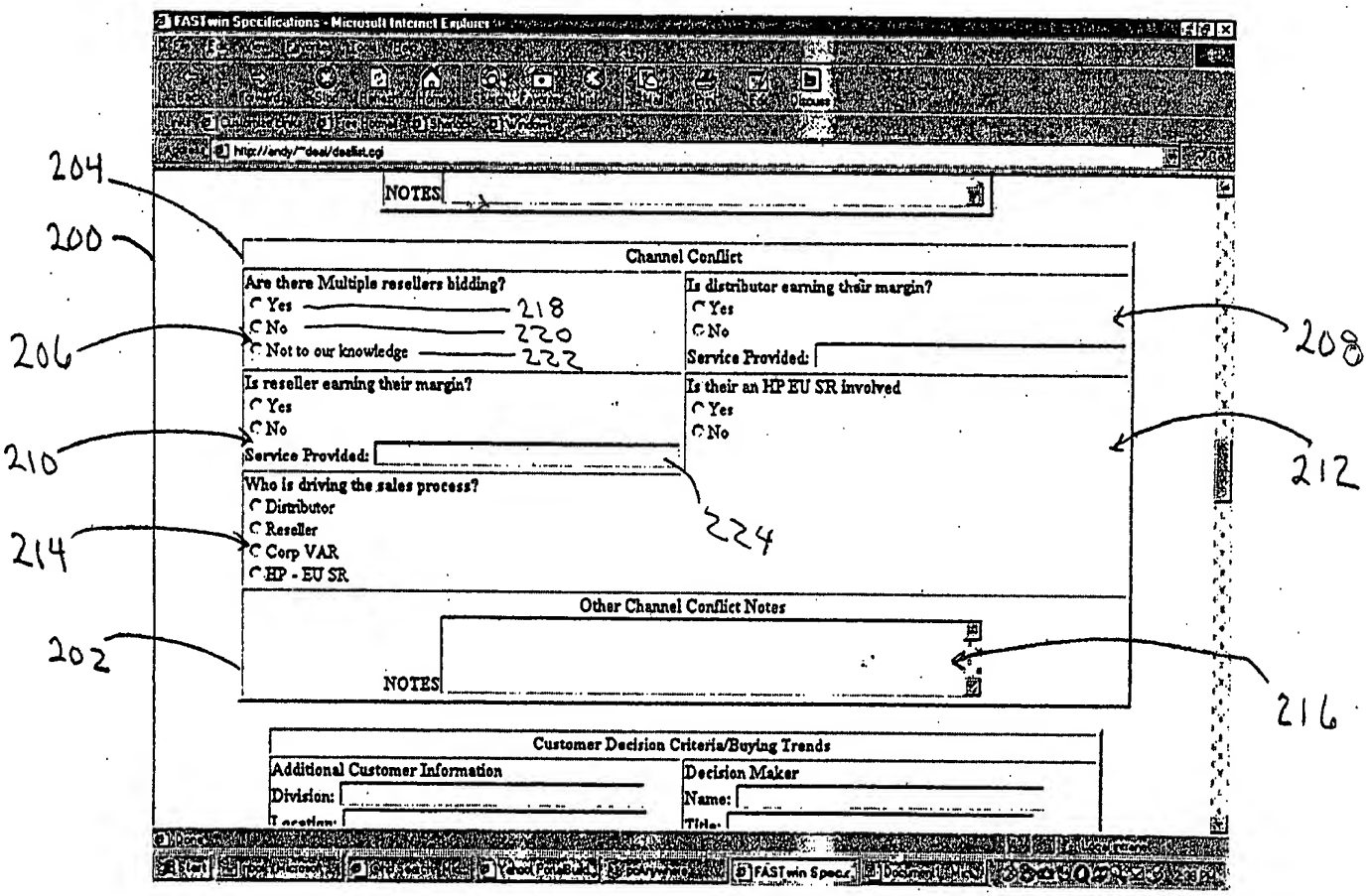

DISPLAY
42
INPUT DEVICE
44
CURSOR
CONTROL
46
MAIN
MEMORY
36
ROM
38
STORAGE
DEVICE
40
BUS
32
PROCESSOR
34
COMMUNICATION
INTERFACE
48
30
NETWORK
LINK
50
SERVER
60
58
INTERNET
ISP
56
LOCAL
NETWORK
52
HOST
54

FIG. 1



This is an example if a real-life application that uses the Data Driven web Page Generator. All of the above was defined by a business owner and the page builds itself. No programming or web knowledge was needed, just the business knowledge.

FIG. 2

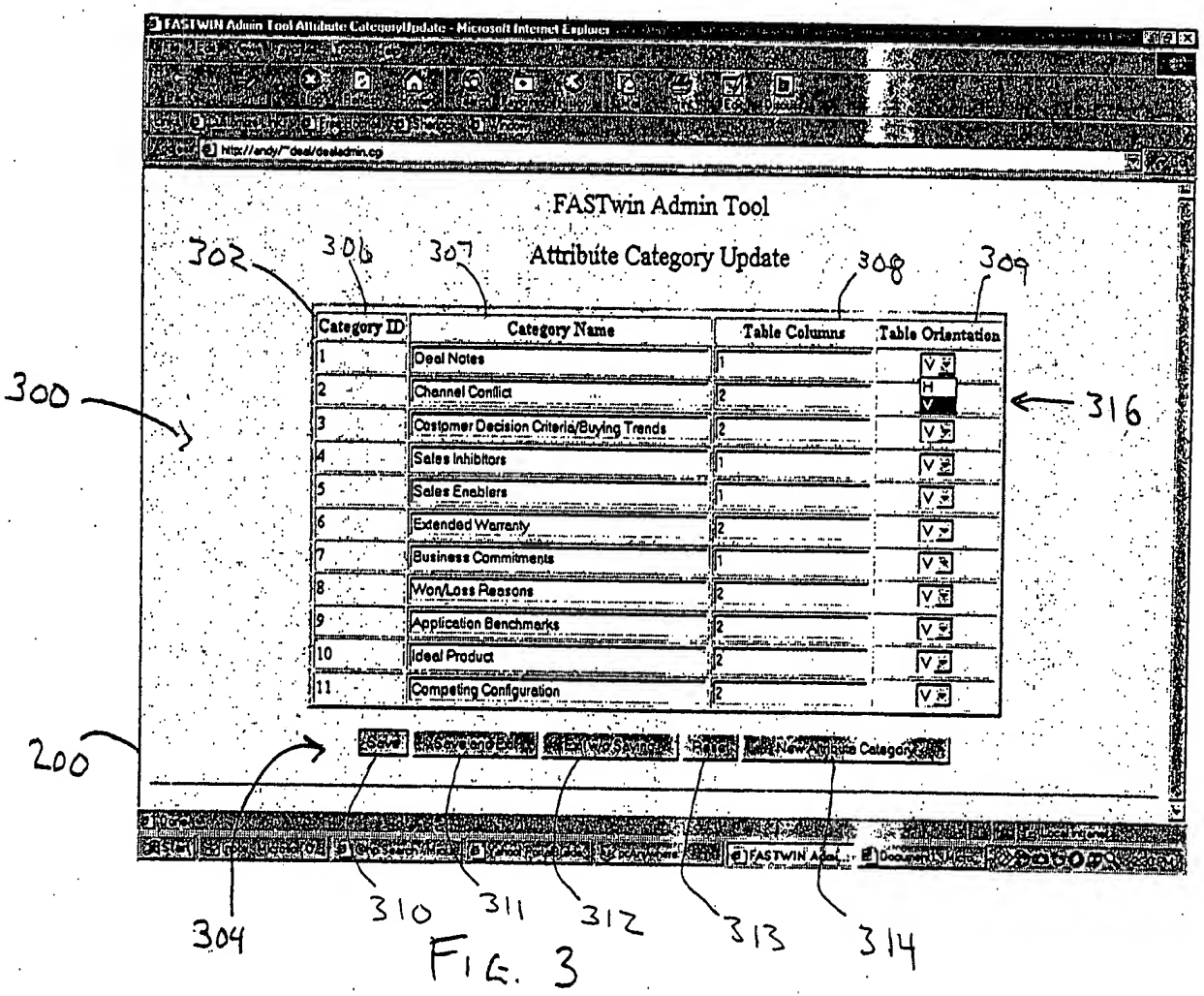

FASTwin Admin Tool
Attribute Category Update
302
306
307
308
309
316
300
200
304
310
311
312
313
314
Category ID
Category Name
Table Columns
Table Orientation
1 Deal Notes
2 Channel Conflict
3 Customer Decision Criteria/Buying Trends
4 Sales Inhibitors
5 Sales Enablers
6 Extended Warranty
7 Business Commitments
8 Won/Loss Reasons
9 Application Benchmarks
10 Ideal Product
11 Competing Configuration
Save
Refresh

FIG. 3

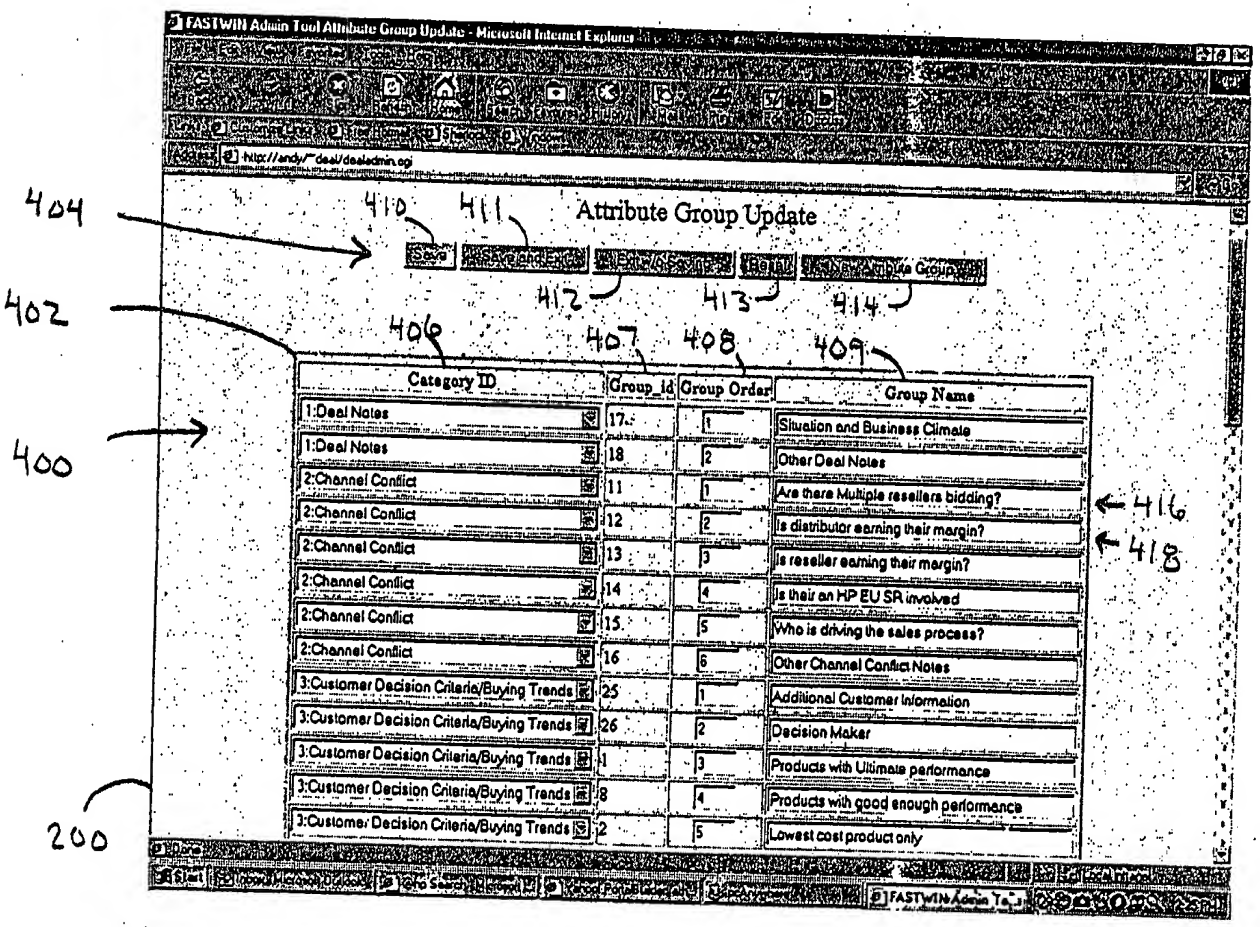

FASTWIN Admin Tool Attribute Group Update - Microsoft Internet Explorer
http://andy/~deal/dealadmin.cgi
Attribute Group Update
Save
Delete
Reset
Add Attribute Group
404
410
411
412
413
414
402
406
407
408
409
Category ID
Group_id
Group Order
Group Name
1:Deal Notes
17
1
Situation and Business Climate
1:Deal Notes
18
2
Other Deal Notes
2:Channel Conflict
11
1
Are there Multiple resellers bidding?
2:Channel Conflict
12
2
Is distributor earning their margin?
2:Channel Conflict
13
3
Is reseller earning their margin?
2:Channel Conflict
14
4
Is their an HP EU SR involved
2:Channel Conflict
15
5
Who is driving the sales process?
2:Channel Conflict
16
6
Other Channel Conflict Notes
3:Customer Decision Criteria/Buying Trends
25
1
Additional Customer Information
3:Customer Decision Criteria/Buying Trends
26
2
Decision Maker
3:Customer Decision Criteria/Buying Trends
1
3
Products with Ultimate performance
3:Customer Decision Criteria/Buying Trends
8
4
Products with good enough performance
3:Customer Decision Criteria/Buying Trends
2
5
Lowest cost product only
416
418
400
200

Fig. 4

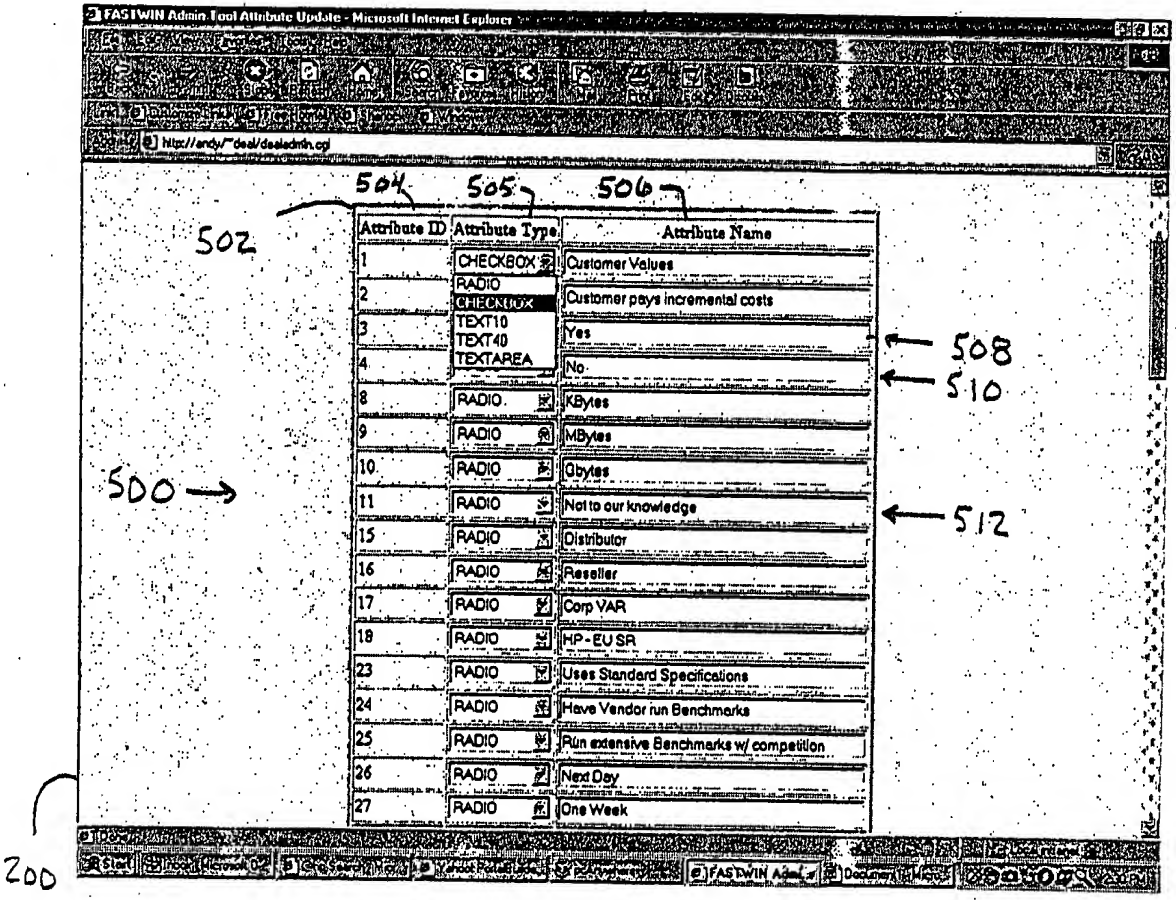

FASTWIN Admin Tool Attribute Update - Microsoft Internet Explorer
http://andy/~deal/dealadmh.cgi
504
505
506
502
Attribute ID
Attribute Type
Attribute Name
1 CHECKBOX Customer Values
2 RADIO Customer pays incremental costs
3 CHECKBOX Yes
4 TEXT10 No
TEXT40
TEXTAREA
8 RADIO KBytes
9 RADIO MBytes
10 RADIO Gbytes
11 RADIO Not to our knowledge
15 RADIO Distributor
16 RADIO Reseller
17 RADIO Corp VAR
18 RADIO HP-EU SR
23 RADIO Uses Standard Specifications
24 RADIO Have Vendor run Benchmarks
25 RADIO Run extensive Benchmarks w/ competitor
26 RADIO Next Day
27 RADIO One Week
508
510
512
500
200

FIG. 5

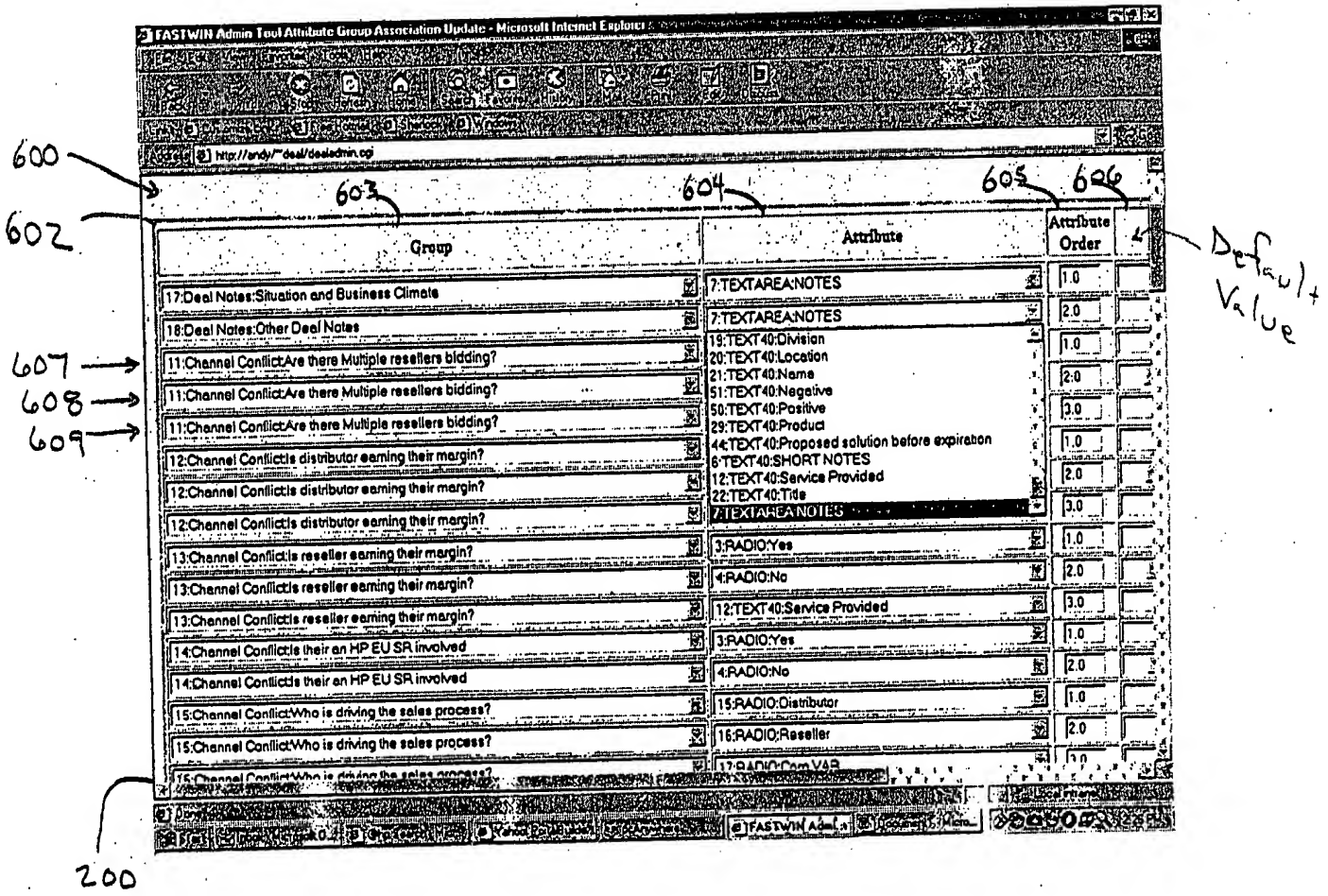

FASTWIN Admin Tool Attribute Group Association Update - Microsoft Internet Explorer
http://andy/~deal/dealadmin.cgi
600
602
603
604
605
606
Group
Attribute
Attribute Order
Default Value
607
608
609
17:Deal Notes:Situation and Business Climate
7:TEXTAREA:NOTES
1.0
18:Deal Notes:Other Deal Notes
7:TEXTAREA:NOTES
2.0
11:Channel Conflict:Are there Multiple resellers bidding?
19:TEXT40:Division
1.0
11:Channel Conflict:Are there Multiple resellers bidding?
20:TEXT40:Location
2.0
11:Channel Conflict:Are there Multiple resellers bidding?
21:TEXT40:Name
3.0
12:Channel Conflict:Is distributor earning their margin?
51:TEXT40:Negative
1.0
12:Channel Conflict:Is distributor earning their margin?
50:TEXT40:Positive
2.0
12:Channel Conflict:Is distributor earning their margin?
29:TEXT40:Product
3.0
13:Channel Conflict:Is reseller earning their margin?
44:TEXT40:Proposed solution before expiration
1.0
13:Channel Conflict:Is reseller earning their margin?
6:TEXT40:SHORT NOTES
2.0
13:Channel Conflict:Is reseller earning their margin?
12:TEXT40:Service Provided
3.0
14:Channel Conflict:Is their an HP EU SR involved
22:TEXT40:Title
1.0
14:Channel Conflict:Is their an HP EU SR involved
7:TEXTAREA:NOTES
2.0
15:Channel Conflict:Who is driving the sales process?
3:RADIO:Yes
1.0
15:Channel Conflict:Who is driving the sales process?
4:RADIO:No
2.0
3.0
12:TEXT40:Service Provided
1.0
3:RADIO:Yes
2.0
4:RADIO:No
1.0
15:RADIO:Distributor
2.0
16:RADIO:Reseller
200

Fig. 6

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

ATTORNEY DOCKET NO. 10013080-1

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

DATA DRIVEN WEB PAGE GENERATOR

the specification of which is attached hereto unless the following box is checked:

( ) was filed on _____ as US Application No. or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: ___ NO: ___
			YES: ___ NO: ___

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION NUMBER	FILING DATE

U. S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION NUMBER	FILING DATE	STATUS (patented/pending/abandoned)

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Customer Number 022879

Place Customer Number Bar Code Label here

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Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Direct Telephone Calls To:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Kimberly K. Read **Citizenship:** USA

Residence: 1901 Canopy Court, Fort Collins, CO 80525

Post Office Address: Same as Residence

_____ _____

Inventor's Signature **Date**

When recorded please return to

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10013080-1

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business in Palo Alto, California, (hereinafter HP), in furtherance of my/our obligations to HP, and do hereby assign and transfer to HP, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

DATA DRIVEN WEB PAGE GENERATOR

Filing date:_____ Application No.:_____

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize HP to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HP, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HP, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HP, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HP, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HP;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HP, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

I/we further authorize and direct HP attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

_____ Date Assignment Signed:_____
Inventor's Signature (Seal)

Inventor's Typed Name: Kimberly K. Read Date Application Signed:_____

State of)
) ss.:
County of)

Before me this ____ day of _____, personally appeared Kimberly K. Read who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

_____
Notary Public
My commission expires:

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TELEPHONE: 703-684-1111
FACSIMILE: 703-518-5499

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JEFFREY H. GREGER
OF COUNSEL
KIEN LE
PATENT ENGINEER

Kimberly Read
1901 Canopy Court
Fort Collins, CO 80525

VIA FEDERAL EXPRESS

Re: New U.S. Patent Application
For: DATA DRIVEN WEB PAGE GENERATOR
Your Reference No.: 10013080-1
Our Reference No.: 1509-160

Dear Ms. Read:

We have now prepared a patent application for the above-identified invention. A copy is enclosed for your review.

Please review the application for technical accuracy and completeness and to ensure that your invention is described in both full and sufficient detail so as to enable persons skilled in this technology to implement the invention without undue experimentation. We would appreciate receiving your comments, changes or suggestions to the draft application.

Please note that this application is based on the invention disclosure record that you provided to our firm. If any revisions have been made to this invention that should be incorporated in this application, kindly bring them to our attention.

If the application is acceptable, please sign and return the enclosed Declaration and Assignment documents to us. Please contact me either by telephone or in writing to finalize the application. We look forward to hearing from you soon so that this application can be finalized and filed in the U.S. Patent & Trademark Office.

Very truly yours,

LOWE HAUPTMAN GILMAN & BERNER, LLP

Randy A. Noranbrock

RAN:lcw
Enclosures

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PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

ATTORNEY DOCKET NO. 10013080-1

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

DATA DRIVEN WEB PAGE GENERATOR

the specification of which is attached hereto unless the following box is checked:

( ) was filed on _____ as US Application No. or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: ___ NO: ___
			YES: ___ NO: ___

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION NUMBER	FILING DATE

U. S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION NUMBER	FILING DATE	STATUS (patented/pending/abandoned)

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

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Place Customer Number Bar Code Label here

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Intellectual Property Administration
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Fort Collins, Colorado 80527-2400

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